S
6046
S11f
May 1978 #3
1978

STATE DOCUMENTS COLLECTION

Montana State Library
3 0864 1006 4873 5

MAY 31 1978

MONTANA STATE LIBRARY
930 E Lyndale Ave
Helena, Montana 59601

forward

SOLID WASTE MANAGEMENT BUREAU
Division of Environmental Sciences
Montana State Department of Health and Environmental Sciences

a bi-monthly publication

MAY 1978 Vol. VI No. 3

Rapid Rail Saves Money, Reduces Litter

When Laurel (pop. 8,000) adopted the Rapid Rail system of garbage collection two years ago, there were many questions to be resolved by experience. The first was the amount of savings each year the system would provide; the second was whether the polyethylene containers could withstand a cold, rigorous winter. Laurel and Wolf Point (pop. 3,000) are providing the answers.

Yes, the system does save money. Yes, the containers are sturdy enough for Montana winters. In addition, an unanticipated positive result has emerged - the system's contribution to the reduction of litter.

Rapid Rail collection is a system involving a truck with a side-loading attachment which reaches out, grasps a 300 gallon container (usually 6 per city block), elevates it to the top of the truck, empties it and returns it to the ground. The truck requires one operator who remains within the truck. Although Rapid Rail, a brand name, is the system used by both Laurel and Wolf Point, it is not the only side-loading, one-man system available. A similar system, called EMCO, has the same basic operation but uses metal, box-like containers.

Recently Laurel released its operational figures for the year 1977 when its Rapid Rail system was in full operation. Its total operating costs were $25,777.78 for two residential pickups per week and daily (except Sunday) commercial collection. For the year 1975, the last full year in which the rear loading truck and two-man plus driver collection system was used, the costs were $47,186.02. That year, residential collection was provided only once a week.

This typical alley shows the litter problem with conventional collection methods.

Rapid Rail 300-gallon containers are located 6 to a block. Their dog-proof, easily accessible tops help reduce litter.

Wolf Point also is supplying better service with its Rapid Rail system and is moving beyond its city limits. Commercial and residential persons outside the city purchase their own containers from the city and pay the same service rates. According to Chuck Worley, Wolf Point's public works director, the city is encouraging this development because of the noticeable reduction in the volume of litter directly attributable to the system.

Worley says that the collection time has decreased from 145 man hours per week to 30 while providing increased service. He explains that the driver/operator job is one of the better positions in city service. The job requires a very capable person who is willing to become involved in public relations, especially during the initiation of the system.

Last winter, Wolf Point experienced unusually cold weather and heavy snows. Worley reported that only 16 out of 390 containers were damanged due to cracking but since the company provides a full warranty for the first year, they do not represent a loss to the city.

City officials in Wolf Point and Laurel are vocal believers in the side-loading system and recommend it to any city which is considering a new system, wants to save money and reduce litter.

Recycling Awards Presented to Helena and Havre

Aluminum Company of America (Alcoa) presented awards to Coors beer distributors in Helena and Havre for winning two categories of the company's aluminum can recycling contest. The contest which ran from June 15, 1977 to September 4, 1977 was based on the greatest tonnage of recyclable cans and the highest return ratio. A third catagory - the highest increase in recycling every year - was not included since this is the first year Montana has been included in the annual contest. The awards were presented at a luncheon in Helena on April 15.

Bighorn Beverage in Helena won the "tonnage" award. Jerry Maykuth, its owner, reports that during the contest period, Helena recycled 71,125 pounds or 1.7 million cans.

E & R Sales, the Coors distributor in Havre, won the award for the highest return ratio of 227% during the contest period.

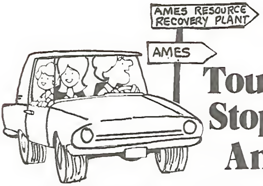
As a part of Coors distributorship agreements, dealers participate in the company's "Cash for Cans" program and provide for recycling of all brands of aluminum beverage cans. In exchange, they receive a small subsidy which helps offset the costs of the program. Collected cans are shipped to an Alcoa smeltering plant which processes them into can stock for shipment to Coors which manufactures its own seamless cans. Since the program was started, Coors has recycled 346 million pounds of aluminum or 8.3 billion cans and paid the public $48 million. The company estimates that last year, with its 14 state market it recycled 1/3 of all aluminum cans in the country.

Helena's Maykuth reveals how one distributor views the program. He says that when it was started in the Helena area he expected an initial surge of business, but anticipated decreasing interest. Instead, he says, the number of cans being brought in has steadily increased and surprisingly, the winter months have not affected the volume.

Maykuth says during the past 10 months, he has shipped 190,000 pounds or 4.5 million cans and paid $32,000 to the recycling public. He estimates that for every can he receives from the brewer, he ships back six empty cans. This is also remarkable because his center is only open 7 hours a week.

"We get every kind of person," Maykuth says, "from young kids with five or 10 pounds of cans (receiving 17 cents per pound) to retired persons supplementing their incomes. People come as far as 40 miles to the recycling center. One time two teenagers brought in a stock truck from Townsend with 1,100 pounds which they had collected in the town's alleys. Another family received $35 from cans collected following the Augusta rodeo last summer."

Aluminum recycling makes dollar sense for the public and economic sense for the industry. It is growing rapidly. Between 1973 and 1974, the number of aluminum cans recycled grew by 40% and there's no sign of this growth leveling off. The economic sense benefiting the industry is the 96.7% savings when aluminum is manufactured from recyclable materials. Aluminum recycling in Montana is contributing its share.



Tourists Stop in Ames

In Ames, Iowa, a steady stream of visitors tour one of its major city facilities - not the museum, zoo or art gallery. The attraction is the Ames Resource Recovery plant which turns refuse into fuel for the city's power plant.

In fact, this is the only major problem which the city hasn't solved since the plant began operating in the Fall of 1975 - how to handle the endless number of visitors from all over the United States and many foreign countries. They all want to view its operations and study its economics.

Recently Vic Andersen of the Montana Solid Waste Management Bureau participated in an Environmental Protection Agency sponsored tour. He reports that two points are particularly interesting about the Ames project which have not received much publicity. First the city has a relatively small population, about 60,000, to support the project and secondly, construction and initial operating capital was obtained through the sale of general obligation bonds and without federal money.

Although the facility was not designed to be experimental, many solid waste experts were awaiting the "shake-down" period before judging its effectiveness as a solution to energy and environmental problems. The first year of operation, the system has proven to be practical and competitive with many current methods of solid waste disposal in spite of extraneous start-up costs and three months of inefficient shake-down operation. It is clean, environmentally advantageous, helps conserve valuable land, fuel supplies and important metals.

The system consists of a collection point for receiving solid waste, sorting facility for recyclable metals and a fuel production plant. Users bring in unsorted solid waste and deposit it in the unloading area. The waste is shredded and all metals and other non-combustibles are automatically separated from it. The combustible fraction is pneumatically conveyed to a storage bin for feeding to the power plant boilers when needed. The fuel is used to supplement the coal for the production of the city's electricity.

The first year, the new disposal costs averaged $10.00 per ton after the sale of fuel and ferrous metals. However, the cost is steadily decreasing because more solid waste is being processed under contracts with additional institutions and public agencies. New aluminum separation equipment beginning operation will also contribute to the cost effectiveness of the system.

More information which will be of interest to visitors is being gathered by Iowa State University. This includes studies on: bacteriological and viral aspects of solid waste processing, boiler performance using coal and refuse derived fuel mixtures, power plant emissions, equipment analysis, ash content and boiler corrosion.

If you visit Ames, Iowa, be sure and see its number one tourist attraction!

Rapid Rail Reduces Litter.

Helena, Havre Win Recycling Awards

Ames – Tourists Visit Resource Recovery Plant

Stillwater County Solves Disposal Problems

Operation Clean SWEEP

Editor's Note: Three years ago, Stillwater County had six open dumps which were a concern to state and local officials. A survey of the problem by Stillwater's county commissioners revealed that they were not only unsanitary but contributed greatly to the county's overall litter problem. With a maximum amount of public involvement, the county began assessing possible solutions to the problem.

The following guest editorial is by Bill Brinkel, Stillwater County Commissioner, one of the leaders in the development of the county-wide solid waste district which implemented the county's plan.

Stillwater County's Operation "Clean Sweep" has proven itself to live up to its name of "Solid Waste Effective Elimination Program" (SWEEP). The collection system is not unique to this county, but the system is different in respect to disposal. The city of Billings contracts with Stillwater County to provide landfill needs and receive the solid waste collected in the county.

The county is basically rural and should, by all standards, not generate a large volume of waste. The town of Columbus is served by a private collection system. However, the daily average generation rate is 3.9 pounds per person or a total of 11,063 compacted yards. Rural people claim that they do not have things to throw away but the volume remains although it varies each month.

County residents who used to haul their wastes to the various landfills in the county now take them to the 4 yard containers (green boxes) placed throughout the area. These are emptied once a week with a front end loader and taken to the 75 yard compactor trailer for further transfer to Billings. Through the solid waste district, each household pays a fee of $2.00 per month to support this system.

The system is permanent enough to guarantee continued services and flexible enough to allow change with unforeseen develments or economic considerations. For instance, the disposal site could change to a local landfill within the county, a recycling center or a reclamation project where it could be processed as a soil conditioner. Any of these changes would only necessitate a change in the travel route of the compactor trailer.

The system is not without its problems. People sometimes do strange things with their wastes. There are problems with long boards and brush that will not fit into the collection containers. Some people will fill a container to capacity and, rather than move to a location a short distance away, will finish dumping their waste on the ground. But any kind of system requires continual public education.

Solid waste is a major problem in many communities. Study and determination of the best system to fulfill the needs of the community or area will provide underground water tables free of pollution, waste that is properly covered, and property free of unusable material that devalues one's investment.

**State Department of Health
and Environmental Sciences
Helena, Montana 59601**

Second Class
Postage Rate
PAID
Permit No. 096050
Helena, MT 59601